

## Cleaning Guam's Coasts for 20 Years

n Saturday, September 20, 2014 the largest cleanup took place on island and around the World— The International Coastal Cleanup! The event is sponsored by the Ocean of Conservancy which started in 1986. "For the past 28 years, Ocean Conservancy has inspired millions of volunteers, as well as industry players, the world over to take action by removing and recording trash during our International Coastal Cleanup. This event has been one of Ocean Conservancy's hallmarks, growing from 12 sites along the Texas coast to more than 6,000 sites in more than 100 countries."(Ocean Conservancy)

Though the International Coastal Cleanup event has been around for 28 years, this year was Guam's 20th annual participation. This all started when a concerned Coast Guard approached BSP's Public Information Officer Dave Duenas and asked how Guam can participate in this worldwide event. That conversation by two concerned citizens paved the road for a cleaner and more aware Guam!

This yearly event is a whole island effort voluntarily led by BSP and comprised with volunteers from federal agencies, Government of Guam agencies, corporate sponsors, private, civil, and military organizations, and of course, the many individual volunteers who allow this event to be such a success on our island.

In addition to beautifying our island and protecting our environment the cleanup provides a unique opportunity to collect information on specific types of trash and sends the report to the Ocean Conservancy in Washington D.C. whereby the data is published by geographic location and used for environmental studies.

According to data compiled by last year's Coastal Cleanup, 81,413 pieces of trash were collected or a total of 1,855 trash bags filled up! This year the landfill received 11.34 tons or 22, 680 pounds of trash! Recyclable items found like alu-





Group of students waiting for assigned area to pick trash.

minum cans were routed to the appropriate recycling facilities.

This year this charitable event hosted 23 sites including an ocean dive site in Asan conducted by Eric McClure from Micronesian Divers Association, one of the many businesses that have supported and continue to support the clean up.

Shout out to the thousands of volunteers and partners who participated in this event!

#### **2013 TOP THREE COLLECTED TRASH**

Item	Total	<b>Total Percentage</b>
Aluminum Cans	15,313	18.81%
Cigarette Trash	13,206	16.22%
Plastic Bottles	8,648	10.62%
	37,167	45.65%

Partners include: Governor and Lt. Governor's Office, Guam Department of Parks & Recreation, Department of Public Works, Guam EPA, Mayor's Offices of Agana, Agat, Asan, Chalan Pago, Dededo,

■ continued on page 4

**INSIDE** 

■ CNMI and Guam on ■ BSP welcomes new ■ Guam Nature **Land Use** PAGE 3

staff PAGE 5

Alliance PAGE 8

#### ■ GCMP has moved!

777 Route 4, Suite 5A, Phase II Complex Sinajana, Guam 96910





## Message from the **Director**

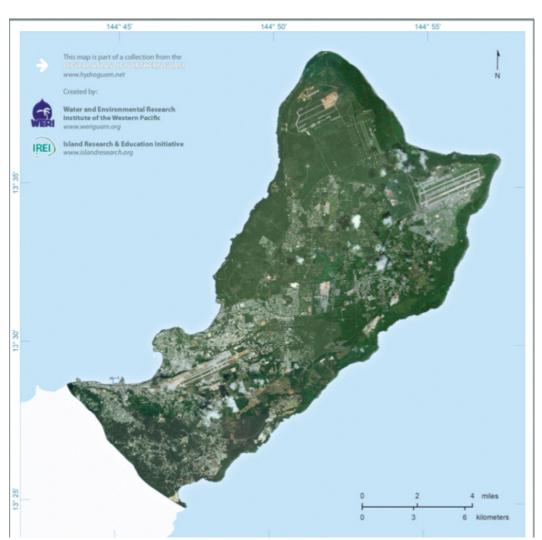
Hafa Adai! AS a customary practice of the Bureau's coastal program newsletter, we are featuring stories about our island's natural resource activities as they play a major role supporting the physical and economic health where we live, work and play. As our island continues to prosper and adapt to changing times, we all need to be proactive as environmental stewards and take pride in keeping our island clean, green, and a home for future generations. Additionally, we like to introduce our new members to the BSP family as they step into the shoes of those retirees with 30 plus years in Government of Guam now moving to a new chapter of their lives whether that be working part time in the private sector to obtain social security benefits, working on the Honey-Do list, or traveling abroad. We hope you enjoy this issue.

Si Yu'os Ma'ase, LORILEE T. CRISOSTOMO



### Digital Atlas Mapping of Northern Guam

Memorandum of Understanding was entered between BSP and University of Guam, Water and Environmental Resource Institute (WERI) utilizing NOAA Coastal Zone Management dollars to assist with the development of a Digital Atlas for Northern Guam to serve as a reference tool that provides snapshots of the natural resources, environment, and man-made features found in the northern half of Guam. The Atlas is accessed via a dedicated domain name, www.hydroguam .net that offers a wide range of information to raise awareness of northern Guam for sustainable management of coastal zone, near shore, groundwater, and terrestrial resources. This online digital atlas serves as a data repository and information server to provide public access to geospatial and other information about northern Guam including text, maps, GIS files, photographs and various forms of data. For more information on the hydroguam domain, call WERI Hydrologist at 735-2693.











# CNMI and Guam Share Ideas on Land Use Management

learning exchange forum bet w e e n CNMI and Guam officials was recently held at the Guam Hilton Resort on August 26, 2014. The Bureau of Statistics and Plans and its network partners shared valuable information on land use management and natural resources protection with CNMI representatives from Division of Coastal Resources Management, Bureau of Environmental and Coastal Quality and board members.

The CNMI group was very excited to learn about Guam's coastal programs including permitting, enforcement, and federal consistency projects. The main difference between Guam Coastal Management Program (GCMP) and CNMI Division of Coastal Resources Management is that GCMP does not have enforcement authority on the conditions placed on proposed projects. GCMP is a network program as authorized by the U.S. Coastal Management Act to collaborate with its partners to enforce natural resources protection and land use management. GCMP works closely with Guam EPA to enforce the Clean Water Act through erosion and sediment control practices; with State Historic Preservation Office for preservation of historic resources and artifacts; with Department of Agriculture for preservation of native plant and animal species; and with Department of Public Works (DPW) to ensure that building codes and its other mandates are enforced.

Terry Perez, Guam coastal zone planner and BSP's representative in the Application Review Committee (ARC) presented the functions of the committee to the Guam Land Use Commission (GLUC) development activities that do not meet zoning codes. Department of Land Management (DLM) director Michael Borja discussed the department's role in the ARC and GLUC process and his role in rendering a decision on summary



CNMI team and Guam counterparts pose for a group photo at Alupang Beach during a recent visit to observe marine sports management.

zone change applications.

Guam representative Mike Cura from the Department of Parks and Recreation briefed the CNMI group of the Recreational Water Use Management Plan to insure the safety and general rights of the general public while providing for the maximum amount of environmentally friendly and sustainable public access to the ocean shore and its marine resources.

A field trip to some of Guam's development projects and marine sport sites were also a part of the exchange forum. The group visited Alupang Towers to observe marine sports recreation and how the Recreational Water Use Management plan has been applied. Marvin Aguilar, Guam Chief Planner and ARC Chairman with DLM provided in sight on the ARC process of the Emerald Towers proposed project that has since changed ownership.

## Coral Task Force Meeting Held in Pacific



Hawaii - Guam's Point of Contact for Coral Reef, BSP Director Lorilee Crisostomo, along with Ed Reyes, Coastal Program Administrator, and Jessica Toft, Assistant Attorney General of Guam, met with Eileen Sobeck, Assistant Administrator for NOAA Fisheries and Co-Chair of Task Force, at the 32nd Coral Reef Task Force meeting held in Maui, Hawaii on September 8-12, 2014. Types of corals recently categorized as "threatened" under the Endangered Species Act, managing construction stormwater impacts, and ocean acidification were couple of the highlights addressed at the meeting.



## GCMP of BSP and Navy continue Phase Approach for Relocation

he Bureau of Statistics and Plans (BSP) continues its efforts to preserve Guam's coastal resources while working with the Department of Defense (DOD) to provide a smooth transition and support for the proposed military build-up in Guam.

Since the announcement of the probable relocation of U.S. Marines from Ōkinawa, Japan to Guam, the BSP has striven to coordinate with the DOD to ensure that Guam's natural resources are protected while providing governmental cooperation and assistance for the proposed buildup. Previously, on May 28, 2010, the BSP completed its review of DOD's April 2010 Federal Consistency Determination (FCD) for the "Guam and Commonwealth of the Northern Mariana Islands Military Relocation, Relocating Marines from Okinawa, Visiting Aircraft Carrier Berthing and Army Air and Missile Defense Task Force", hereinafter referred to as the Relocation Plan, which was initially submitted to the BSP for federal consistency review. After thoroughly evaluating the FCD and Draft Environmental Impact Statement (DEIS) upon which it was based, the BSP found that the Relocation Plan was not consistent with the enforceable policies of the Guam Coastal Management Program (GCMP), nor was the FCD in compliance with the Federal Consistency Regulations



Albert Blas of Naval Facilities Engineering Command Marianas, Dept of Navy, briefs representatives from Department of Agriculture, Guam EPA, BSP, and other agencies of the proposed sites for the main cantonment stated in the DSEIS for the upcoming Marine Corps Relocation.

under 15 C.F.R. Part 930. The GCMP then objected to the Relocation Plan as proposed.

On June of 2014, DOD worked together with the Government of Guam and submitted new federal consistency documents for the BSP's review. The Relocation Plan contained more specific information on the Draft Supplemental Environmental Impact Statement (DSEIS) and newly submitted Negative Determination (ND) for the Relocation Plan to be reviewed. However, the BSP did not find the

Relocation Plan to be entirely consistent with the enforceable policies of the GCMP, nor was the ND in compliance with the Federal Consistency Regulations under 15 C.F.R. Part 930. In particular, the DSEIS proposed the construction of a brand new housing site proposed to be located at in Finegayan, near Haputo, also known as "Alternative A." The construction of this new housing at "Alternative A" would have required the clearing of approximately 400 acres of mature limestone forest, as well as the drilling of mul-

tiple new wells into the Northern Aquifer to provide infrastructure for the new housing. The ND submitted by DOD found that this drilling would have no foreseeable impact on Guam's natural resources.

Under the GCMP, the BSP conditionally concurred with other projects proposed in the DSEIS which would make improvements to already existing structures but disagreed to DOD's determination that its proposal to drill multiple new wells into the Northern Aquifer to support the housing located at "Alternative A" would have no foreseeable effect on Guam's natural resources. In response, DOD proposed a new housing option, tentatively labeled "Alternative E." Thus far reported, "Alternative E" is a proposal to improve and renovate existing and currently unoccupied housing located on Andersen Air Force Base. This proposed housing purportedly already has existing infrastructure, and would not require the clearing of large amounts of ground cover or forest. The BSP is currently awaiting confirmed written documentation regarding the "Alternative E" proposal, in compliance with the National Environmental Policy Act, for its review and comments.

The BSP would like to thank the Department of Navy, Joint Region Marianas for its commendable cooperation to BSP and its network resource agencies during the review of the DSEIS and to continue the phase approach of the proposed activities in relation to the Relocation Plan of the Marines.

#### ■ continued from page 1

Inarajan, Mangilao, Merizo, Piti, Talofofo, Tamuning/Tumon, Umatac, and Yona. Other partners include Underwater World, Sea Grill Restaurant, Fisheye Marine Park, I-Recycle, Tristar, Trivision Media, Coast360 Federal Credit Union, TASI, Guam Hawgs, Guam Association of Realtors, Lagu Šanitation, Guahan Waste/Mr. Rubbishman, Trash Co./ Morrico Equipment, Pacific Waste Systems, Gershman, Brickner & Bratton, Pyramid Recycling, Mobil Guam, Best Water & Ice, Micronesian Divers Association, Pacific Daily News, Hit Radio 100, K57, Isla63, Island Beautification Task Force, Guam Girl Scouts, Eco- Warriors, Marine Mania, Guam Community College, University of Guam, Guam EPA, Water Environmental Research Institute (WERI), National Oceanic and Atmospheric Administration (NOAA), War in the Pacific National Historical Park, United States Coast Guard, Anderson Air Force Base, and U.S. Navy.



#### ICC 2014 Sites

Adelup Shore Agat Shore Asan Cut Dive Site Asan Shore Dungca's Beach Inarajan Bay Ipan Beach Marbo Cave Marine Lab Coast Matapang Beach Merizo Shore Oka Point Okkodo Pipeline Pago Bay Paicppouc Cove Paseo Shore Piti Shore Taga'chang Beach Talofofo Bay Tanguisson Tarague Beach Umatac Shore Ypao Beach

Volunteers signing up for Clean Up

4

### **BSP Welcomes New Staff**

he Bureau of Statistics and Plans (BSP) welcomes new employees Edwin Reyes, Jesse Rojas, Brenda Atalig, Estella Tapia, and Jessica Toft.

Edwin "Ed" Reyes joins BSP as the Guam Coastal Program Administrator. He earned his degree in Business Administration with a focus in Management in 1997 and later obtained an M.B.A. in Management in 2013 from the University of Guam.



Edwin "Ed" Reyes

Edwin brings an extensive background in grants and project management to GCMP earning processional certificates from the National Grant Writers Association and National Center for Construction Education and Research.

He was the project manager for NOAA's Western Pacific Coral Reef Institute at the University of Guam and managed several Cooperative Agreements from the Department of Defense ranging from biosecurity to assessments of indigenous species on military installations

As the administrator for GCMP, Ed will continue managing Coastal Zone Management grants and over-seeing programs including Federal Consistency, land use and coastal resource protection.

Ed resides with his family in Merizo. He is very active in his village; participating in coral reef monitoring and parish activities.

Another new addition to the BSP-GCMP team is Brenda Atalig as Planner I. She is a recent graduate of the University of Guam with a degree in Political Science and a minor in Public Administration.

As a junior planner trained under the guidance of senior planners Esther Taitague and Terry Perez, she is looking forward to being an advocate for Guam's natural resources by educating the general public on the watershed approach for a healthier Guam.

According to Brenda, "natural resources run out and if we do not protect them or use them effectively and efficiently we risk the chance for future generations not to experience our beautiful island as we know it now. I am excit-



Brenda Atalig

ed to be a part of this team that is a voice for our environment; be it on land or our coastal reefs."

Brenda enjoys reading a good book and keeping active with her six year old daughter.

Jesse Rojas comes to Guam Coastal Management Program Bureau of Statistics & Plans as our GIS Manager. His vast experiences and knowledge begins as an Engineering Technician II with the Department of Land Management and assisted with the validation of the 1963 Guam Geodetic Triangulation Network to 1993 Guam Geodetic Network. He supervised the first GIS Land Parcel Layer, 1993 Adjusted Layer, Federal Excess Land Layer, both Federal and Local Gov-

ernment Layers, and essentially supervising developments in both GIS and LIS data capture and conversion.

Jesse soon became the GIS/LIS Manager in 2010 and moved to the Office of Technology, a department created through consolidation of information

technology functions under the Department of Administration, Data Procession Division.

Jess also serves in the Guam Army National Guard, and enjoys spending his spare time with family both near and far.



Jesse Rojas

Joining the Socio-Economic Planning Program is Estella Marie Blas Tapia as Planner I. In December 2013, she received her Bachelor's Degree from the University of Guam in Business Administration with a concentration in Human Resources.

As the newest planner in the Socio-Economic team of BSP, Estella is responsible for coordinating efforts in manag-

ing the Edward Byrne Justice Assistance Grant (JAG) as well as training under Lola Leon Guerrero, Planning Supervisor and Millie Erguiza, senior planner.

Estella was recently assigned as an alternate Health and Well-



Estella Marie Blas Tapia

ness Coach for the agency to promote the work-site wellness program. "I hope that I can help and inspire other staff from the Bureau to be active and adopt a more positive and healthier lifestyle" said Estella.

Estella was a member of the Guam Women's National Volleyball team in 2010 and served as team captain for Guam at the 2011 Pacific Games held in New Caledonia. While not at work, Estella enjoys spending time with her two beautiful daughters and staying fit and healthy.

Jessica L. Toft is an attorney with a diverse background of practice areas, whose focus is on natural resources and environmental law. Mrs. Toft holds a ju-

ris doctorate from the University of Wisconsin Law School. She worked for the Wisconsin Coalition for Advocacy and volunteered at the Wisconsin Coalition Against Domestic Violence.



Jessica Toft

She moved to Guam in 2004, and

has held prior positions as a prosecuting attorney at the Office of the Attorney General of Guam, as an associate at Cabot Mantanona, LLP, and as a research attorney for the Superior Court of Guam. She has re-joined the Office of the Attorney General of Guam as an Assistant Attorney General in the Civil Division and assigned to BSP for legal assistance on coastal management, coral reef and natural resources matters.

She is an outdoor enthusiast whose hobbies include hiking, diving, and playing ultimate Frisbee.

### **BSP Bids Farewell** to Retirees

he Bureau of Statistics and Plans applauds five employees for their extensive contributions and service to the people of Guam.

"As long-time members of the Bureau, they will be genuinely missed by their colleagues for their valuable and institutional knowledge and support to the island's community. The Bureau wishes them heartfelt congratulations as they begin another chapter in their lives" said Lorilee Crisostomo, Director.

October 2014



Best wishes to Tom Quinata who retired this past July.



Congratulations Ray Caseres for 30 years of service.



BSP bids farewell and congratulations to Amelia De Leon, Terry Perez, and Therese Aguon on their retirement September 2014.

## Catching up with the Guam Community Coral Reef Monitoring Program



By Marybelle Quinata

he Guam Community Coral Reef Monitoring Program (GCCRMP) is offering new ways for residents to get involved with coral reef management. Since 2012, over 400 residents have completed GCCRMP's class training and in-water training. Monthly training sessions and monitoring events bring residents together for a collective ef-

fort to learn more about Guam's reefs and gather information that can help protect them. This summer, GCCRMP members helped document coral bleaching in Piti and Merizo. Participating members learned how to identify coral bleaching and conducted surveys that can help quantify bleaching in Piti. These sessions have led to conversations with members on climate change, specifically the effects of increased sea surface temperatures.

Another way for residents to

get involved is to take the lead in coral reef monitoring and join GCCRMP's Adopt-A-Reef network. Community or school groups, even families, can become site-leaders in their communities by "adopting a reef" in their village. Monitoring adopted reefs will give members first-hand knowledge they can share with their fellow classmates and neighbors. By sharing their experiences members spread awareness about their reef and environmental stewardship ac-



For more information or to stay updated on GCCRMP events, you can visit their website at www.guamreefmonitoring.wordpress.com, like them on Facebook, or email gureefmonitoring@gmail.com.

tivities.

GCCRMP is also working with schools to offer coral reef monitoring as a service learning or community service opportunity for students. Through the program, students experience Guam's reefs first hand to better understand human impacts to our reefs, and connect observations to what they learn in class. It also introduces them to potential careers in marine science and natural resource management. Teachers can arrange to host class training sessions for students at their schools.

And for residents that may not have the time to participate in coral reef monitoring, GCCRMP and National Park Service host monthly Science Sundays at the T. Stell Newman Visitor Center on the third Sunday of each month at 2PM. This public event features talks by scientists about their exciting work to understand and protect Guam's coral reefs. Audience members and scientists engage in open discussions that include personal experiences and issues of concerns about Guam's reefs or other related top-



#### Renovated Agat Small Boat Marina Dock A

The Port Authority of Guam held a ribbon cutting ceremony for the recently renovated Agat Small Boat Marina Dock A. The dock is a low level maintenance facility with the use of no rot recycled plastic composite material, marine grade aluminum frames and stringers, stainless steel components and accessories, PAG received a \$250,000 grant award from the NOAA's Western Pacific Regional Fishery Management Council's Sustainable Fisheries and other matching funds for this project. Courtesy of Port Authority of Guam



## Kika Clearwater's **Summer Camp 2014**

or the fourth year in a row, the Bureau of Statistics and Plans, Guam Coastal Management Program and the Guam Environmental Protection Agency, sponsored Kika Clearwater's Summer Camp filled with adventure and packed with island culture.

Over 50 students were immersed in Guam's natural resources and able to visit so many places on Guam from the ridges of Mt. Santa Rosa and Mt. Humuyong Manglo to the shores of Tumon Bay.

They also hiked to Priest Pools in Merizo, 1,000 Steps in Mangilao, and Fonte Dam accessed through Nimitz Hill.

Kika campers discovered how every-

thing upland will eventually impact our coral resources found below.

The eager learners saw first-hand native and invasive plants, native and invasive animals, and signs of erosion caused by fire and feral animals.

Other lessons learned from Kika Clearwater's Summer Camp were the importance of the Northern Guam Lens, cultural respect for our land, and to reuse, reduce and recycle.

The 2014 Kika Clearwater's Summer Camp could not have been such a success without the help from our partners Guam Environmental Protection Agency, Guam Fire Department, Guam Community Coral Reef Monitoring Program, NOAA and various volunteers.



# Assessment to Assessment to Businesses From Tropical Storm Halong

he Bureau of Statistics and Plans, in conjunction with the Guam Homeland Security Office of Civil Defense conducted a preliminary business sector disaster damage assessment in the aftermath of Tropical Storm Halong's impact to Guam on July 30, 2014.

As mandated by the Guam Emergency Plan, the Bureau is responsible for collecting, preparing and submitting the damage assessment report to the Governor of Guam within seventy-two (72) hours after the Governor declares Condition of Readiness IV.

About seventy-four government officials from eight GovGuam agencies mobilized their teams and resources to assess cost of damages to businesses affected by the storm.

Representatives from the Agency for Human Resources Development, Department of Land Management, Department of Labor, Department of Chamorro Affairs, Guam Economic Development Authority, Guam International Airport Authority, Guam Visitors Bureau, and the Port Authority of Guam surveyed island businesses collecting information on damages



**Above:** Pete Leon Guerrero, BSP Response Activity Coordinator advises Brenda Atalig how to complete the Business Sector Disaster Damage Assessment form and interview business owners.

and/or loss to building, equipment and merchandise.

Survey teams were equipped with Go Kits provided by Guam Homeland Security/Office of Civil Defense to assist in field work activities which included survey forms, pencils, backpacks, clipboards, and raincoats.

Close to 700 businesses were surveyed during the preliminary assessment.

"Many thanks to the dedicated government employees who responded in this effort to address the needs of our business community. The preliminary assessment will help in determining potential federal assistance to the island for use in recovery and rebuilding efforts for our establishments", says Lorilee Crisostomo, Director, Bureau of Statistics and Plans.

### MAN, LAND and SEA BUREAU OF STATISTICS & PLANS

This Man, Land, and Sea newsletter was prepared by the Bureau of Statistics and Plans (BSP) using federal funds, under award NA13NOS4190132 from the Office of Ocean and Coastal Resource Management (OCRM), National Oceanic and Atmospheric Administration (NOAA), U.S Department of Commerce. The statement, findings, conclusions, and recommendations are those of the BSP and do not necessarily reflect the views of the OCRM, NOAA, or the Department of Commerce.

Lorilee T. Crisostomo Director GUAM COASTAL MANAGEMENT PROGRAM

Edwin Reyes Administrator CONTACT US P.O. Box 2950 Hagatna, GU 96932 (671) 472-4201/2/3



#### Manell-Geus, Guam selected as a winner of Habitat Blueprint the next NOAA Habitat Focus Area

#### **NOAA's Habitat Blueprint:**

"The vision behind Habitat Blueprint is for healthy habitats that sustain resilient and thriving marine and coastal resources, communities, and economies. Habitat Blueprint provides a forward looking framework for NOAA to think and act strategically across programs and with partner organizations to address the growing challenge of coastal and marine habitat loss and degradation.'

n February 2014, NOAA announced the Manell-Geus Watersheds located in Merizo as winners of NOAA's Habitat Blueprint. The week of August 25th members from the Habitat Blueprint reviewing committee arrived on Guam to visit the Manell-Geus Watersheds to gain a first-hand perspective on our issues and resource concerns. The Habitat Blueprint team consisted of a group of people from various NOAA departments, including Buck Sutter, Director of NOAA Habitat Conservation and Leo Asuncion, Acting Director of Hawaii State's Office of Planning.

Valerie Brown, NOAA Marine Ecologist, guided the team on a snorkel in the Achang Bay Marine Preserve where they were able to observe seagrass beds to include a variety of coral and fish species. Following the snorkel, Christine Fejeran, of the Bureau of Statistics and Plans, led a hike into the Manell River Channel explaining how feral ungulates, wildland fires, invasive species and poor land use practices are all major contributors to the erosion and sedimentation issues impacting corals found within the Achang Bay Marine Preserve Area.

Mayor Chargualaf of Merizo, joined the team later that day and participated in a frank but engaging conversation with the Habitat Blueprint team. Mayor Chargualaf vocalized his concerns regarding the safety of his community and the impacts to the natural resources found within the village. Mayor Chargualaf stated "sediment from the mountains will continue to flow into our waters if nothing more is done on the mountains to protect our marine environment. The water will always find a way." Emphasizing this ridge-toreef connection and the importance of addressing best management practices from an ecosystem approach, the Mayor also shared his concerns on major floods impacting his village community. Habitat Blueprint represents a coming together, pulling of resources, which will strengthen the best management practices proposed for implementation within the Manell-Geus Watersheds.

For more information on Habitat Bluevisit http://www.habitat .noaa.gov/habitatblueprint/ and under Habitat Focus Area click on Pacific Is-



#### For more information

on Habitat Blueprint visit http://www.habitat. noaa.gov/habitatblueprint/ and under Habitat Focus Area click on Pacific Islands.

#### Guam Nature Alliance Launch — August 30, 2014

August 30, 2014, the Guam Nawhich comprised of various Government of Guam agencies, nonprofits and educational organizations held a free event with the mission "Connect with your environ-

The event was held in the Masso Watershed located in Piti and was open to families and students island-wide. The Guam Nature Alliance works towards increasing environmental education on three resource areas Tasi (Sea), Hanom (Freshwater) and Tano (Land) as per the Governor's Executive Order 2014-07.

Event coordinator, Tammy Jo Anderson Taft with the Guam Environmental Protection Agency stated, "We had over 200 students register for the event and every public high school was represented.'

The day's events were broken into major activities. The Tano group held a native tree planting activity at the Masso Reservoir Nature Park and educated par-



ticipants on the value of native plants and the Guam Department of Agriculture healthy watersheds. Brent Tibbatts with

spoke to students about the various native

and invasive flora and fauna found in Guam's rivers. Water sampling collection and testing activities captivated the audience who were enthralled by the 'Van Dorn Sampler' which sounded a rather loud "clunk" once triggered. With assistance from Ms. Sydonia Manibusan from University of Guam, students enjoyed deploying the device into the water to collect samples.

Dr. Rouse from UOG spoke about what could be detected in water samples.

The Tasi group took participants out for a snorkeling adventure.

Tree planting, fresh water testing and snorkeling provided by the Guam Nature Alliance launching its community outreach to promote environmental stewardship, a full ridge-to-reef experience.

For more information on free family activities and connecting with our environment, check out the Guam Nature Alliance website at http://epa.guam.gov/activities/guamnaturealliance/ or like us on

